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CALIFORNIA **URBAN WATER** AGENCIES

May 20, 1999

Mr. Lester Snow
Executive Director
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Subject: Early Implementation Actions for Water Quality

Dear Mr. Snow: Lester

The California Urban Water Agencies (CUWA) has reviewed the March 11, 1999 Draft Bundles of Early Implementation Actions report and the Water Quality Early Implementations Actions contained in the April 8, 1999 memorandum from Rick Woodard to the CALFED Water Quality Policy Team. CUWA agency staff and consultants participated in the development of the Water Quality Program and the early implementation actions. The comments detailed in this letter focus on the source control actions addressing drinking water parameters which are of most concern to urban water agencies, and on other CALFED actions that are important to move forward early in Stage 1 to achieve drinking water quality improvement.

While this letter focuses on drinking water quality issues, CUWA is supportive of the ecosystem water quality actions that are contained in the two documents referenced above. We support the efforts of the California Regional Water Quality Control Board, Central Valley Region (Regional Board) to develop total maximum daily loads (TMDLs) for water quality parameters which are impairing the beneficial uses of the surface waters in the Sacramento and San Joaquin River basins. We urge CALFED to support these efforts as a means of addressing key ecosystem water quality problems.

CUWA supports CALFED's concept for a drinking water quality improvement strategy, that includes a combination of source control actions developed as part of the Water Quality Program and other CALFED actions and studies that will help improve drinking water quality. We believe it is important that the strategy include a mix of source control actions, operational modifications, storage and conveyance facilities improvements, health effects research, treatment research, and water exchanges to effectively improve

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the quality of Bay-Delta drinking water supplies. In addition, it is critical that all elements of this strategy move forward in the first two years of Stage 1. The benefits of implementing these actions needs to be verified through monitoring and modeling. CUWA endorses developing water quality milestones as a way of verifying continuous water quality improvement through implementation of these actions.

CALFED Source Control Actions

Veale Tract Drainage Discharge Study (Action 6) – CUWA supports inclusion of this project in the early implementation actions. As stated in the April 15, 1999 letter from Richard Denton of Contra Costa Water District (CCWD) to Lester Snow, this project is needed in part to offset the water quality impacts of other South Delta actions. If this project is needed to mitigate adverse water quality impacts resulting from other CALFED actions, CCWD should not be required to share the cost of the mitigation portion of the project. We support CCWD's request that an evaluation of the relocation and/or treatment of the RD 800 drain be included in the early implementation actions.

Study of Non-Seawater Sources of Bromide (Action 11) – CALFED's Bromide Expert Panel concluded that seawater accounts for nearly all of the bromide in the Delta. Bromide levels in the San Joaquin River are elevated due to the recirculation of bromide derived from the Delta. A simple desk-top analysis of salt loading in the Delta and San Joaquin Basin could be performed to determine if there are other minor sources of bromide in the San Joaquin Basin. This analysis would most appropriately be conducted by the Department of Water Resources (DWR) Municipal Water Quality Investigations (MWQI) Program or the U.S. Geological Survey (USGS). CALFED should not spend up to $1 million investigating non-seawater sources of bromide. These funds can better be used on other source control actions and studies that are warranted.

Barker Slough Watershed Restoration (Action 25) – CUWA supports the inclusion of the Barker Slough Watershed Management Program in the early implementation actions list. Solano County Water Agency has obtained partial funding to investigate BMPs to improve organic carbon and turbidity levels at the Barker Slough Pumping Plant. Additional funding will be needed to implement the project if the on-going study indicates that water quality can be improved through watershed management. A number of ecosystem improvement projects are planned in the vicinity of the Barker Slough Pumping Plant. CALFED must monitor these projects to determine their impacts on water quality at the pumping plant and the potential loss of supply reliability due to pumping restrictions at the pumping plant.

Sources and Loadings of Drinking Water Constituents (Action 36) – This action is a high priority action that must be completed to determine methods of controlling total organic carbon (TOC), total dissolved solids (TDS), bromide, pathogens, and nutrients. CUWA is currently working with DWR's MWQI Program to analyze historic data and determine what is known about the concentrations and loadings of key drinking water parameters. This current analysis will identify what must be included in

the more comprehensive evaluation. The cost estimate of $0.5 to $1.0 million per year should be adequate when combined with existing monitoring being conducted by the MWQI Program, DWR Operations and Maintenance Division, and USGS. A combined effort of DWR and USGS will be needed to properly conduct this study. These data would also be used in the development of TMDL's for drinking water contaminants.

Total Organic Carbon Evaluation (Action 33) – The scope of this action needs to be broadened from an evaluation of treating agricultural drainage to a more comprehensive analysis of all of the potential options for improving Delta water quality through management of agricultural drainage. This would include an evaluation of treating Delta agricultural drainage, relocating agricultural drains, collection and discharge of drainage from multiple islands at downstream locations that would not adversely affect drinking water quality or ecosystem water quality, retirement of Delta agricultural land, and active land management (reduced leaching, holding drainage for discharge, alternative crops, water conservation, etc.). After an evaluation of all of the options is conducted, pilot scale studies of the most feasible actions should be conducted. The study will likely cost about $1 million per year for the first two years to evaluate the options. At that point, pilot projects could potentially cost $4 to $6 million.

San Joaquin Salt Management (Action 7) – CUWA supports real time management of salt in the San Joaquin Basin; however, the scope of this action should be broadened to include additional actions such as on-farm water conservation, tiered pricing, drainage recirculation systems, land management, and land retirement where other options are not feasible. Many of these actions have been implemented in the Grasslands area. These actions could be implemented on a much broader scale in the San Joaquin Basin if CALFED provided financial assistance. Also, the CALFED Program should provide funding and track the progress of the Central Valley Regional Water Quality Control Board's effort to develop a Basin Plan Amendment addressing salt and boron in the lower San Joaquin River. As part of this effort, Regional Board staff will be developing an implementation plan that will include strategies to reduce salt discharges to the San Joaquin River. It will be important that CALFED support and provide funding for San Joaquin Basin salt management actions that are consistent with the Regional Board Basin Plan Amendment.

Note that oversight of the Grassland Bypass project is through an Oversight Committee consisting of representatives of USBR, USFWS, USEPA, DFG, and the Central Valley Regional Board. This might be a better way of describing the project rather than saying the project is headed up by the California Resources Agency and Department of the Interior.

Additional Source Control Actions

Additional source control actions that CUWA recommends be included in the first two years of Stage 1 are discussed below.

Byron Tract Drainage Discharge Study – CUWA supports CCWD's April 15, 1999 request that an evaluation of the relocation and/or treatment of the RD 800 drain be included in the early implementation actions. This project would also serve to offset the water quality impacts of other South Delta actions.

Study of Recreational Impacts on Drinking Water – Recreation in the Delta and on the State Water Project reservoirs may contribute pathogens and other contaminants to drinking water supplies. CALFED should support an investigation of strategies to address water quality impacts of recreation (boating and body-contact recreation) on SWP reservoirs as one of the early implementation actions. This study would likely take two years to complete and should be funded at about $0.5 million per year.

South Bay Aqueduct Watershed Management Project – The water agencies taking water from the South Bay Aqueduct do not have the benefit of large storage reservoirs to moderate fluctuations in water quality. CALFED should fund a watershed management project to identify potential methods of improving water quality along the South Bay Aqueduct. A budget of about $100,000 should be adequate to identify potential control methods. Additional funding would be needed in later years to implement the watershed management program.

Support for Drinking Water Protection Policy - CUWA is requesting that the California Regional Water Quality Control Board, Central Valley Region develop a Drinking Water Protection Policy for the Sacramento and San Joaquin basins. We are recommending that water quality objectives be established for TOC, TDS, bromide and pathogens and that a management plan be developed to meet the objectives. Development of this strategy is important for achieving drinking water quality improvement and needs to be linked to development of a coordinated strategy to reduce and mitigate the impacts of urban wastewater discharges into the Delta and its tributaries. Establishing these objectives is key to the future development of TMDLs for drinking water parameters of concern. Although this action should be implemented by the Regional Board, working with the State Water Resources Control Board (State Board), the Department of Health Services (DHS), and the Environmental Protection Agency (EPA), we recommend that CALFED provide political and financial support for this effort.

Drinking Water Quality Improvement Strategy

As stated above, CUWA is supportive of the CALFED drinking water quality improvement strategy that includes a combination of source control and non-source control actions to improve water quality. We recommend that the following actions be initiated in the first two years of Stage 1.

Health Effects Studies - CALFED must identify needed public health effects studies to more specifically identify the potential health effects of bromide related disinfection by-products, and provide financial and technical support to ensure that these studies are completed and the results are incorporated in the CALFED process. Although the American Water Works Research Foundation and EPA are conducting health effects research, CALFED must focus on the specific health effects research needed to answer Bay-Delta issues. Some of these studies can take many years to conduct, so CALFED should identify the needed studies and support initiation of these studies in the first two years of Stage 1. This area of work is important as EPA enters the rule-making process for the Stage 2 Disinfectants/Disinfection By-products (D/DBP) Rule.

Water Treatment Research - CALFED must identify needed studies on brominated and chlorinated disinfection by-product operational controls at water treatment plants and provide financial and technical support to implement incremental improvements as warranted in subsequent sub-stages of Stage 1. CALFED should also provide financial and technical support to investigate advanced treatment technologies for the removal of TDS, bromide, TOC, and pathogens in urban water supplies.

Alternative Sources of High Quality Water - CALFED should investigate alternative sources of and means of providing high quality water supply for urban users of Delta water, and identify legal, water rights, institutional, and physical constraints that currently prevent development of integrated systems. It is important that this work move forward early in Stage 1, as water exchanges and blending programs will likely become an important and necessary tool for achieving water quality improvement for drinking water supplies, especially in Stage 1.

Operational Modifications - CALFED should evaluate and implement changes in upstream and Delta operations to continuously improve water quality for Bay-Delta drinking water supplies and for other beneficial uses of water in the Delta, without impacting CALFED's goal of continuous improvement in water supply reliability.

Evaluation of Physical Modifications to Improve Water Quality - CALFED should evaluate and conduct feasibility studies on modifications to conveyance facilities that could improve water quality. In particular, CUWA recommends that CALFED conduct feasibility studies for the Hood Test Screens and Diversion Facility, and potential south of Delta improvements such as the O'Neill bypass and San Luis Reservoir bypass facilities to improve water quality for the California Aqueduct and the San Felipe Project. It is important that this work move forward in the first two years of Stage 1, since implementation of operational changes and facilities improvements is likely to be the primary means of achieving drinking water quality improvement early in Stage 1.

Comprehensive Monitoring, Assessment, and Research Program (CMARP) – CALFED must commit to fund and implement sufficient monitoring and assessment procedures to monitor drinking water quality parameters at major urban water supply intakes and determine effectiveness of source control actions as well as areas where

additional improvement in water quality is required. CMARP should be included as an early implementation action for funding in the first two years of Stage 1.

We appreciate the opportunity to comment on the early implementation actions and look forward to working with CALFED to further develop these actions over the next several months.

Sincerely,

Byron M. Buck
Executive Director

cc:

Mr. Steve Ritchie
Ms. Judy Heath
Mr. Paul Marshall